Meeting Description: Michigan Geographic Framework Users Meeting
Date: July 12, 2001   **Time:** 10:00 a.m.
Location: Michigan Information Center, George W. Romney Building, 10th Floor, Conference Room

I.   Approval of June Meeting Minutes

II.   Geographic Framework Program
         A.   Polygon Build / Act 51/ Seaming Update
    Rob Surber, Michigan Information Center (MIC), distributed a current status map. He reported that MIC has finished the seaming process for all counties. This work includes the Act 51 updates and polygon builds for the counties. MIC is now doing quality control work on Wayne County then will give data to Michigan State Industries (MSI) to add Michigan Department of Transportation attributes.
         B.   2K TIGER Integration: Tracts and Block Groups
    Rob Surber, MIC, reported that they are doing 2000 TIGER integration of tracts and block groups and have only Wayne County to finish – in another week or so.
         C.   Repositioning Update
    Rob Surber, MIC, reported that the repositioning work is underway. Twenty-five counties are currently in progress and they have ortho's for 9 counties ready and can start work on them at any point. The repositioning is complete in 10 counties. When a county is complete, all quarter quads (QQ) that cover that county and spill over into the next county are also complete. Moving quickly now that they have identified physical reference (PR) roads as the primary feature to be edited. They have more than doubled the speed since they are no longer doing all features.
         D.   Digital Ortho Update
    Rob Surber, MIC, reported that they are in the process of ordering 40 more quads that are not covered by the innovative partnership (IP).
    Everett Root, MIC, added that these are ortho's that just showed up on the web site as available. Some are 1998 and some black and white from Wisconsin for the Gogebic area. As soon as those arrive, will take to MDNR.
    Rob Surber, MIC, commented that they are scattered around. This is an attempt to fill in the holes. This should take care of it.
    Everett Root, MIC, added unless some were missed in the bookkeeping. They are almost 5,000 of them.
    Brian Mohr, SEMCOG, asked for an estimate of when version 1.0 of framework would be released.
    Rob Surber, MIC, responded the end of summer.
    Brian Mohr, SEMCOG, asked if Oakland County is 100% done.
    Rob Surber, MIC, responded that Oakland County is being worked on by MSI.
    Brian Mohr, SEMCOG, asked if there are additional MDOT sufficiency attributes being added to the file that might delay the release.
    Joyce Newell, MDOT, responded that that work is being done by MSI.
    Rob Surber, MIC, asked for status report on sufficiency attribute work, which is reconciling control section numbers with the physical reference (PR) numbers. MIC is doing work on MDOT attributions (with a few minor corrections) in parallel with work MSI is doing.
    Joyce Newell, MDOT, commented that they are trying to streamline Oakland and Wayne counties' processing by splitting the work into 4 parts.
    Rob Surber, MIC, stated that the MIC sent the preliminary files to SEMCOG and Wayne County.

E.   NASA Grant Update

Rob Surber, MIC, reported that the state of Michigan was not selected and that MIC has not seen a formal list of those that were selected. NASA will respond to all applicants and give reason why they were not selected and give suggestions for next go around.

Jeroen Wagendorp, Allegan County, stated that he would like to see the grants that were selected.

Rob Surber, MIC, suggested that part of it could be a timing thing. He sensed that NASA wanted a broad representation of different things that could show how NASA data is being used. Maybe we didn't fit into niche. MIC feels that they presented a broad representation from private section and various areas of government. Maybe we tried to do too much, even though we could have done it. Most states focused on a narrow application that might be easier to rate and grade. The grant will be offered again next year.

F.   NHD / MGF Meeting

Rob Surber, MIC, reported that there was a national hydro data set meeting. There was a lot representation. They talked about the status of the Michigan Geographic Framework and where the National Hydro Project is. There are a few pilot projects on the docket. The United States Geological Survey (USGS) has been delaying some pilots – Macatawa, River Rouge, Manistee. The idea is to take the national hydro data set and River Reach coding move to higher resolution – at least framework quality line work. The Fisheries Division, MDNR, has an immediate need to work with this data and with the federal government to create statewide data sets to collect fish data. The Fisheries Division sent a staff person to training on tools and programs that are used to conflate data to higher resolution line work. They discussed issues. There are needs to get high-resolution data for modeling. When that is done in relationship to when the Michigan Geographic Framework is ready to work with that level of data is part of the issue. The Fisheries Division would be doing a pilot project on an area selected by the technical subcommittee. The pilot region would use the tools and techniques and deal with the conflation exercise with the framework data set. MIC's desire that work be done well and in a coordinated manner so that statewide applications may be enabled with this data. This data would be available to anybody who uses their coverage information. The Forest Service is involved and they have a timeline to finish drainage bases in their coverage areas (15 or so watersheds) and need to finish by the end of the next fiscal year. This is an ambitious project. Unsure what will be as a result from this, whether can tie into that, whether can give them framework to start with, unsure of quality controls that would develop. The technical sub-committee will be involved. Trying to see how to mesh efforts.

Gary Bilow, MDNR, added that the major limiting factor is that the 1:100,000 national hydrography data set is not available to begin conflation.

Rob Surber, MIC, commented that his sense from Charley Hickman, U.S.G.S., was that he felt that the state is approaching this in a good manner. There are still a lot of question marks and treading lightly into this area. Don't want to go too far without knowing what the expectations of the group are and whether these expectations can be met.

III.   Michigan Department of Natural Resources (MDNR) Projects and Activities

Gary Bilow, MDNR, distributed status maps for the following: 1992 Series DOQs, 1998 Series DOQs, and Michigan DOQ Production Status-1998 SERIES. The 1998 Series is an innovative partnership with U.S.G.S. They started doing the ground controls of the last block to complete the coverage for the state. The West end of the Upper Peninsula is being done by U. S. Forest Service and expected delivery date is June 2002. The 1998 Series DOQs status map shows the reprojection schedule into Michigan GeoRef. The 1992 Series DOQs status map shows DOQs that are available, but not all reprojected yet. Hope by the end of the calendar year

hope to have entire state covered with a combination of 1992 and 1998 series. The MDNR has a Virtual Geographic Information Laboratory (Vigil) which is a group who look at the GIS projects every year and replacing the 1992 DOQ version was high on list of things to do. Now they are looking at extending the Innovative Partnership and MDNR will dedicate money to replacing DOQs. MDNR is counting on the Forest Service to do the northern part of the state (Huron and Manistee National Forests). Did not include these areas in their budget. They are estimating $900,000 to replace the 1992s that are not covered by national forests and national lakeshores. The state share will be half, but if U.S.G.S. can find other federal partners the state share could be less.

Rob Surber, MIC, asked if the Forest Service comes up with a new set every 10 years.

Gary Bilow, MDNR, responded that the Forest Service has been driving the DOQ production effort. The MDNR recently became involved at the same level. There was a debate within MDNR about whether to buy DOQs or use satellite technology. The next series purchases (MDNR is in the practice of purchasing every 10 years) they will probably change to satellite imagery. However, there are many uses for traditional DOQs.

Jeroen Wagendorp, Allegan County, asked if vendors have bothered Gary. There are two companies stating that if you currently have a digital terrain model from a previous ortho coverage (if not, they will substitute the best available from U.S.G.S.), they will fly 6-inch pixel ortho's for $100 per square mile for a typical county. If the product is acceptable can entice the vendor with 4-6 county region they would probably lower their price. Jeroen would like to know more about it. A re-fly becomes feasible.

Rob Surber, MIC, commented that the high-resolution satellite industry would drive the cost down

Jeroen Wagendorp, Allegan County, commented that with the 6-inch pixel coverage you could see stuff and the photo would be decent.

Gary Bilow, MDNR, added that the terrain model is the key and they don't have that. That might be the statewide fight – statewide Light Detection and Ranging System (LIDARS).

Jeroen Wagendorp, Allegan County, asked if Gary sees any terrain models.

Gary Bilow, MDNR, responded it's the U.S.G.S. Digital Elevation Models (DEM) 30-meter level 2.

Jeroen Wagendorp, Allegan County, added that they are basically doing the same thing this company is proposing to do if you don't have your own control.

Gary Bilow, MDNR, added that MDNR pays for control in some areas. They are surveying the last block. The DEMs they are generating will meet U.S.G.S. standards.

Jeroen Wagendorp, Allegan County, commented that their differences are vertical and horizontal control is 1-meter level but give you give 6-inch pixels so that you can actually see something. It is a nice fusion of parameters.

Gary Bilow, MDNR, responded that this is interesting because MDNR is paying more than that for state parks.

Jeroen Wagendorp, Allegan County, stated that he had done the math and can get 6-inch pixels for the entire state of Michigan for $10 million.

Gary Bilow, MDNR, stated that in about two weeks, MDNR would have a web site up with DOQQs reprojected and available to download with map interface. They are in MrSID compressed format. They are working on final details. Also working on how to view them on-line. This will be part of the spatial data library.

IV.   Michigan Department of Transportation (MDOT) Projects and Activities

Joyce Newell, MDOT, reported that they got pressure from the Michigan State Police (MSP) for southeast Michigan framework for crash data. MIC is putting together some counties for that

effort prior to Version 1 release. Attended a 2-day workshop sponsored by Veridian (formerly ERIM). They presented work they had done for a pilot project with an Arizona county and the state of Michigan to do change detection using satellite data. It appeared that they had better luck in Arizona than in Michigan. It might have something to do with the features. MDOT was mostly interested in getting new roads, number of lanes, and pavement type. There were differing ideas on whether it was feasible to do it, especially statewide. Veridian's basic approach was to detect where the most urban change had occurred using satellite imagery then can get better photography at higher level to analysis those areas and this would cut down on photography costs. When trying to do a statewide network, this system does not catch all the changes. The salesmen were optimistic. MDOT has distributed 6 preliminary physical reference (PR) atlases prior to finishing the sufficiency resolution with the framework. They are being used.

V.   Michigan Department of Environmental Quality (MDEQ) Projects and Activities
        Nobody in attendance.

VI.   Michigan State Police (MSP) Projects and Activities
        Eric Nischan, MSP, reported that they had a small scale Foot and Mouth Disease drill. It went well. All participants were overwhelmed with doing the drill in a small portion of Allegan County. Now they are doing more work and analysis. They were impressed with the canned GIS presentation used for the drill. The basic consensus was that more planning was needed. There is a Foot and Mouth Disease response plan in draft form that will be put into place.
        Jeroen Wagendorp, Allegan County, asked if there were cattle epidemiologists involved in the drill.
        Eric Nischan, MSP, responded that there were representatives from all livestock industries as observers and commentators. The actual responders were from state agencies and MSU Extension Service. There were lots of issues to be hammered out. If this hits the deer population we cannot get rid of it. Bovine TB is nothing in comparison.

VII.   Michigan State Industries (MSI) Projects and Activities
        Carol Woodman, MSI, distributed a status map. MSI received Oakland County from MIC to work on MDOT attributes. There are 4 staff assigned. The work is done twice for quality control. They are 1/3 done with Oakland County-the work is being done in sections. Oakland County does Act 51 maps differently than anybody else in the state. MSI can deal with differences but have always matched Act 51 mileage with the certified number on the page – these don't match and they don't even come close. MSI has a contact name of a person at the Oakland County Road Commission who has an inventory of roads by name and by mileage. At this time are skipping over problem areas until they are able to get more information.
        Joyce Newell, MDOT, asked if the inventory they sent was of help.
        Carol Woodman, MSI, responded that it helped with a different problem. MSI has completed the Physical Reference (PR) Finder Project work for the Northern and Superior Regions (about 40 counties). MSI has also completed the Highway Performance Monitoring System (HPMS) work for both regions. There are 4 people working on PR finder; 4 people working on framework; and MSI has some other CAD projects that they are working on. The GIS Factory is actively seeking additional jobs from government and non-profit agencies. The purpose of this inmate industry is to provide low cost, excellent quality GIS services to these agencies while training inmates in a viable skill to promote success upon release.
        Brian Mohr, SEMCOG, asked for an explanation of what the PR Finder Project and the HPMS are.

Carol Woodman, MSI, responded that they are putting in PR numbers to connect to control section areas.

Joyce Newell, MDOT, added that MSI is given a list of all roadway projects. MSI is locating them on the framework. MDOT has taken their segmentation for the HPMS from the old Needs file done in the 1970's and 1980's. The segmentation is not in framework. MSI is coding the HPMS for the Federal Aid System only to framework. Then MDOT can relate their HPMS data back to a map, which they need to do for Federal Highway Administration (FHWA).

Brian Mohr, SEMCOG, asked if this is a totally separate project from framework.

Joyce Newell, MDOT, responded that it is separate although MDOT related. SEMCOG and others help collect HPMS data

Rob Surber, MIC, added that MSI is tagging a stable version of framework.

VIII.   MIC Projects and Activities
        A.   National Pipeline Mapping

Rob Surber, MIC, U.S. Department of Transportation, Office of Pipeline Safety, has an announcement for grant applications to create state repositories to map liquid natural gas and hazardous liquid pipelines and their facilities. These would be provided as part of a national network of pipelines for safety and national security. The announcement went out the last two years to Public Service Commissions and other groups in the state, but they didn't to want to take this project on. The members of the Framework Group have shown a lot of interest. Rob is working on a proposal for the state that indicates that state agencies are interested and would like to become the state repository for the State of Michigan. The proposal is due the end of July. It is a 50-50 cost share for the mapping effort. Will work on integrating with framework. Would have to work with all the gas companies in the state and will send a letter explaining the intent for the state.

Gary Bilow, MDNR, asked to share the draft. Gary would like to run it through their Minerals Section.

Rob Surber, MIC, responded that he would pass it over to see if they want to add more information to the proposal. Rob stated that MDEQ, MSP, and MDNR have all shown interest. The U.S. Department of Transportation opened up for the State of Michigan to apply. If a state doesn't become repository, then the federal government works with gas companies directly to get the information. They really want to get us on board.

Gary Bilow, MDNR, asked if the U.S. DOT had enough money.

Rob Surber, MIC, responded that they have enough money. The state need to come up with an estimate of what it would cost - the federal government would cover half of that. The goal is to get a sense as to what needs to be mapped – that is the purpose of the letter sent out. This would be an ongoing project so that utility companies would provide updates and changes. The project does not include petroleum in the pipeline network.

        B.   Cancer Geocoding

Rob Surber, MIC, reported that the MIC has signed another agreement with the Department of Community Health (DCH) to continue cancer geocoding. MIC is mapping 1998-1999 and 1985-1989 cancer cases by resident address. MIC is doing the location referencing and DCH has information about type of cancer, duration, treatments, etc. MIC is working with DCH over the next year. MIC has already mapped 1990-97. When finished will have 15 years worth of located records. Anything that does not match, MIC spends time researching address lists and phone discs. This is confidential data. MIC is doing ZIP code equivalency from 1980 data to current ZIP code data.

Jeroen Wagendorp, Allegan County, commented that he has predicted high cancer incidents for parts of Michigan for years.

Rob Surber, MIC, commented that soon there will be 15 years worth of data and researchers will be able to trend analysis.

Laurie Rumpf, MDOT, asked what the ultimate reason is for collecting the data. It seems that by mapping data, trends and places could be connected - for example, Midland County and Dow Chemical.

Rob Surber, MIC, commented that DCH is interested in looking at unusual patterns. There is a problem getting good statistics at the sub-county level. Does not know if there is cross-reference with industries, spills, hazardous sites, etc. The goal for MIC is to provide best data possible. MIC has already mapped a decade of birth and death records. By address matching with the framework. When data falls out, most of the time is spent on manual work.

Jeroen Wagendorp, Allegan County, commented that it sounds like the data does not have to be super tight.

Valdis Kalnins, Allegan County, added that this sounds like a good way to improve framework.

    C.   Small Town Mapping

Rob Surber, MIC, distributed a status map of Small Town Mapping of small settlements in the state. The MIC has been working with little towns as point symbols on the state highway map and the Act 51 maps. Found that on Act 51 maps the small towns are often not at the right intersection or spelling is wrong. MIC identified whether these small towns are on the state highway map or Act 51 map or both. A few counties that have not been complete, but MIC has placed over 900 points in the state. They are being created as a point feature. The points are linked to the framework by point identification at intersection where they are at an intersection. Then they can move with framework during repositioning.

Everett Root, MIC, added that they have no jurisdictional boundaries.

Rob Surber, MIC, commented this is an important service to the base map. As MIC does more quality control, they will make sure that this is available with framework. MIC scanned the state highway map and rubbersheet it to framework statewide map, then superimpose to find where there were missing things.

Jeroen Wagendorp, Allegan County, commented that Allegan County has a historical group that hangs on to this information.

Rob Surber, MIC, stated that MIC feels there are levels of generalization. When you get to the county level, this data might be useful to county citizens but would not be commonly used at the state level. MIC had a discussion with University of Michigan (U of M) about the idea of an official Place Names directory came up. The federal government has a 'Names Board' at the federal level, which may or may not meet the needs of the state level. U of M library and other libraries want to link data collection items geographically - on field notes, archeological sites, etc. Other states have attempted to create a 'Names Board'. This could be the start of something in support of framework and official names.

Everett Root, MIC, asked Jeroen Wagendorp where he gets names for the lakes in Allegan County.

Jeroen Wagendorp, Allegan County, responded that he gets the data from previous road maps.

Everett Root, MIC, asked about names for new residential developments where they damn up a creek, call it a lake, and build houses around it. How are they named?

Gary Bilow, MDNR, added when gravel pits are reshaped and lakes are put around it - does the developer name it?

Everett Root, MIC, commented that there is a need for a government entity for the names to pass through.

Jeroen Wagendorp, Allegan County, commented that a gravel pits are platted and then the pond is named. The county gets blue prints when they are registered.

Rob Surber, MIC, commented that different features have different processes.

Everett Root, MIC, added that often roads go through 9-1-1.

Joyce Newell, MDOT, asked if TIGER Census Places was used.

Rob Surber, MIC, commented that TIGER is good for anything that has to count people within certain boundaries. They are spotty for any landmark or point of interest.

Joyce Newell, MDOT, wondered if MIC is going to compare for completeness of things.

Rob Surber, MIC, added that TIGER collects data for Census Designated Places (CDP). There is a little overlap, but they do try to keep it separate. It is not being confused with boundaries that come from framework. MIC is going to be doing more with e-Michigan for travel and tourism to locate and coordinate golf courses, water parks, etc. at a statewide basis.

IX.   MSU Center for Remote Sensing and GIS Projects and Activities
        Nobody present.

X.   County / Local Projects and Activities
    Jeoren Wagendorp, Allegan County, stated that Ottawa County lost their GIS director. Allegan County has done two contour projects for MDNR and one contour project for MDOT. For MDOT Jeoren provided contours from Holland to Richland.

    Gary Bilow, MDNR, asked which digital elevation model (DEM) source they are using.

    Jeroen Wagendorp, Allegan County, responded that they are using their own ortho's. They now have control for Allegan County and in a couple of years can have re-flown for $100 per square mile. Once you have a terrain model, there are companies that can take the old terrain model and give a new set of ortho's for a fraction of the original cost. Looks like the casino is going to be built. Directly south of there is a drag strip that was bought by a native company. In addition, the same company is hoping to locate a NASCAR racetrack close to the drag strip. The Allegan County development person is working with Jeroen since there is no county planning. The preparations for the fall county GIS conference are going well. Most of the vendor spots are taken.

XI.   Regional Projects and Activities
    Brian Mohr, SEMCOG, reported that they are adding 2000 census blocks to their 7 county region. They are 57% complete with Livingston County and 83% complete with St. Clair County and ready to begin work on Macomb County. Since MIC is not done with their work on Wayne County, SEMCOG can begin work on that also.

    Everett Root, MIC, stated that he wanted to be sure sufficiency data was done because it does effect PRs and road data. MIC is repositioning Monroe County. It would be best for SEMCOG to work on Washtenaw next.

    Brian Mohr, SEMCOG, stated that they are developing a large number of maps for their public transit plan. The maps show existing transit routes and proposed new transit routes laid on top of polygon data (density of households, density of jobs per acre, number of household in poverty, what percent of people live near transit routes, etc.) They are have routes for all fixed transportation routes in their region.

    Rob Surber, MIC, asked if this data is tied to framework.

    Brian Mohr, SEMCOG, responded that he is not sure.

    Rob Surber, MIC, commented that there is a lot of interest within Family Independence Agency (FIA), Economic Development Corporation, MDOT, and other groups have asked if MIC had fixed bus routes.

Brian Mohr, SEMCOG, added that he is not sure how the maps were originally created-if on their own maps or pre-framework.

Rob Surber, MIC, commented that there are often requests for this information for economic development or services for FIA clients.

Brian Mohr, SEMCOG, added that for their own planning, he is sure that SEMCOG would want to have this data tied to framework.

XII.   Federal Projects and Activities
   Nobody preset.

XIII.   Other Issues

XIV.   Next Meeting Date
   August 2, 2001, 10 a.m. until 12 p.m., Michigan Information Center, George W. Romney Building, 111 S. Capitol, 10th Floor, Lansing, MI 48933

** If any changes or corrections are to be made to these minutes, please contact the Michigan Information Center at (517) 373-7910